

Product Information Sheet

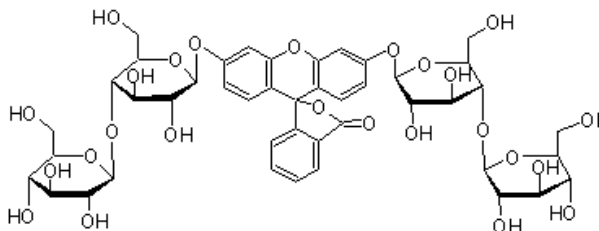
Ordering Information

Product Number: 14025
Product Name: FCB [Fluorescein di-beta-D-cellobioside]
Unit Size: 1 mg
Storage Conditions: <-15 °C and kept from light and moisture
Expiration Date: 12 months upon receiving

Chemical and Spectral Properties

Molecular Weight: 980.87

Chemical Structure:



Soluble in: DMSO
Excitation Wavelength: 490 nm
Emission Wavelength: 514 nm

Application Notes

This non-fluorescent fluorescein substrate generates the bright fluorescein product that has Ex/Em = 492/514 nm, and can be easily detected with a FITC filter set. In general, fluorescein substrates are much more sensitive than coumarin or nitrophenol-based substrates. This fluorescein substrate is used for monitoring cellulase activities. Cellulases are a family of enzymes that include β -glucosidases, endoglucanases and exoglucanases. These enzymes cleave the β -1,4-D-glycosidic bonds that link the glucose units comprising cellulose. In addition to being produced by plants, cellulase activity is found in many fungi and bacteria, including some plant pathogens. Most animal cells are not known to produce cellulase, in which the cellulolytic activity is often carried out by symbionts. The study of cellulase activity has many applications in plant molecular biology, agriculture, and manufacturing. Cellulase is becoming important in the development of alternative fuel sources, as glucose obtained from cellulose hydrolysis is easily fermented into ethanol. Activity of most cellulases can be conveniently monitored using this sensitive fluorescein cellobioside. Upon cleavage, the fluorescent compound, fluorescein, is released and activity measurements are easily obtained in a microtiter plate based assay format.